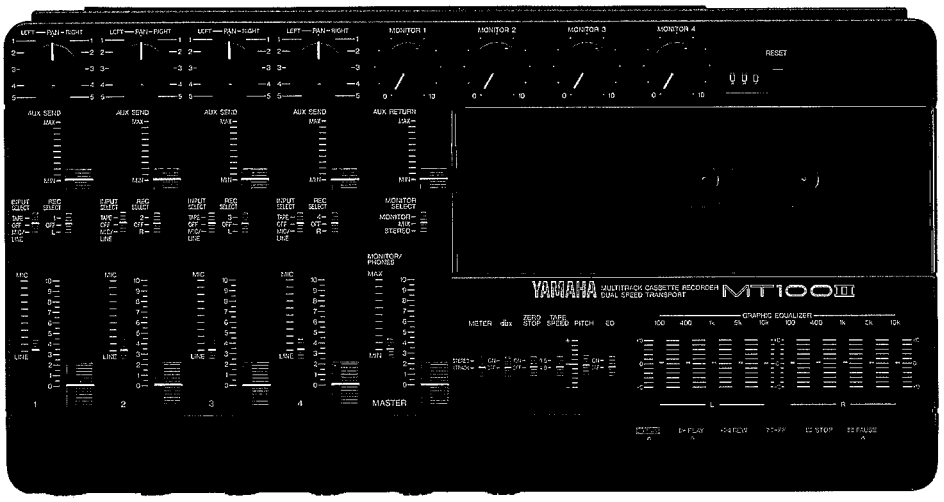
MULTITRACK CASSETTE RECORDER

MT100III

SERVICE MANUAL



MT100II

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PARTS LIST

LM 006995

YAMAHA CORP.
HAMAMATSU, JAPAN
2.25K-233 Printed in Japan '90.4

IMPORTANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification, recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

IMPORTANT: Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

■ SPECIFICATIONS

TAPE TRANSPORT

Tape Type	*Chrome (70 microsec. EQ)*
Heads	*4-channel Permalloy rec/play head*
	4-channel ferrite erase head
Tape Speed	*4.8 cm/sec., 9.5 cm/sec.*
Pitch Control	*± 10%*
Wow & Flutter	*Less than 0.15% WRMS*
Rewind Time	*Approx. 100 sec., for C-60 tape*
Motor	*DC servo motors (2)*

CONNECTORS

Input 1 — 4	Input Impedance	*10 k-ohms*
	Rated Input Level	*–10 dB to –50 dB (fader nominal)*
	Max. Input Level	*+10 dB (gain control min.)*
	Min. Input Level	*–56 dB (gain control, fader max.)*
AUX RETURN L & R	Input Impedance	*10 k-ohms*
	Rated Input Level	*–10 dB (AUX RETURN level control nominal)*
	Min. Input Level	*–16 dB (AUX RETURN level control max.)*
STEREO OUT L & R	Output Impedance	*1 k-ohm*
	Load Impedance	*Greater than 10 k-ohms*
	Rated Output Level	*–10 dB into 50 k-ohms*
PHONES	Load Impedance	*8 to 40 ohms*
	Max. Output Level	*45 mW + 45 mW/40 ohms*
TAPE OUT 1 — 4	Output Impedance	*1 k-ohm*
	Load Impedance	*Greater than 10 k-ohms*
	Rated Output Level	*–10 dB into 50 k-ohms*
AUX SEND	Output Impedance	*1 k-ohm*
	Load Impedance	*Greater than 10 k-ohms*
	Rated Output Level	*–10 dB into 50 k-ohms*
MONITOR OUT	Output Impedance	*1 k-ohm*
	Load Impedance	*Greater than 10 k-ohms*
	Rated Output Level	*–10 dB into 50 k-ohms*

ELECTRICAL SPECIFICATIONS

Frequency Response (NR OUT)	*50 Hz to 18 kHz, +3 dB/–6 dB at 9.5 cm/sec.*
	50 Hz to 12.5 kHz, +3 dB/–6 dB at 4.8 cm/sec.
S/N ratio (3% THD Level)	*85 dB, dbx ON, IHF-A*
Distortion	*1.5% at 315 Hz, dbx ON, –10 dB Rec. Level*
Channel Separation	*Greater than 55 dB at 1 kHz, dbx ON*
Erasure Ratio	*Greater than 70 dB at 1 kHz, dbx ON*
Noise Reduction	*dbx **
Graphic Equalizer	*100, 400, 1k, 5k, 10kHz (± 10 dB), Q = 0.7*

GENERAL

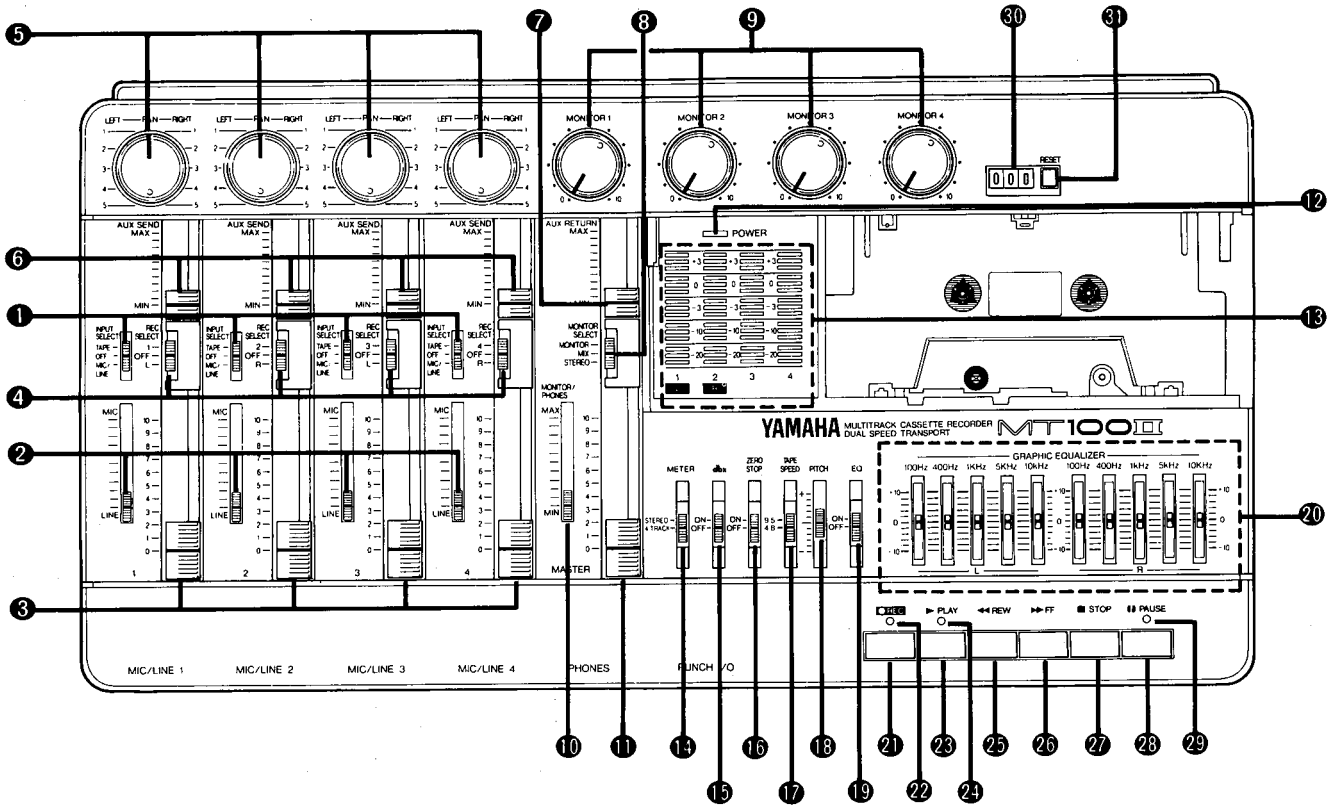
Power Requirements	*U.S. & Canadian Models: 120 V AC, 60 Hz*
(PA100 AC Adaptor)	*General Model: 220/240 V AC, 50/60 Hz*
Dimensions (WxHxD)	*400 x 76 x 212 mm (15-3/4" x 3" x 8-3/8")*
Weight	*2.0 kg (4 lbs 7 oz)*

**dbx is a trademark of dbx Incorporated.*

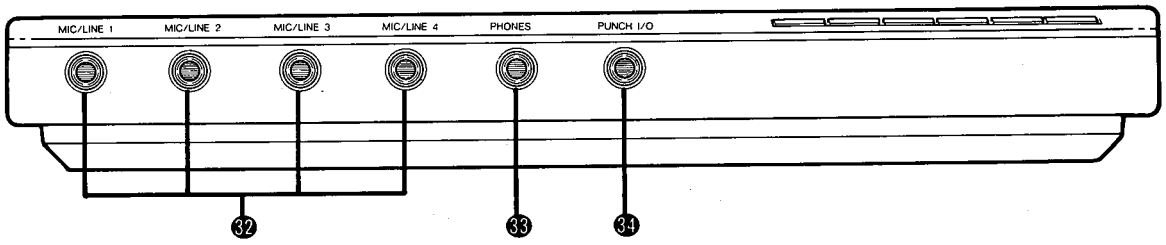
0 dB = 0.775 Vr.m.s.

■PANEL LAYOUT

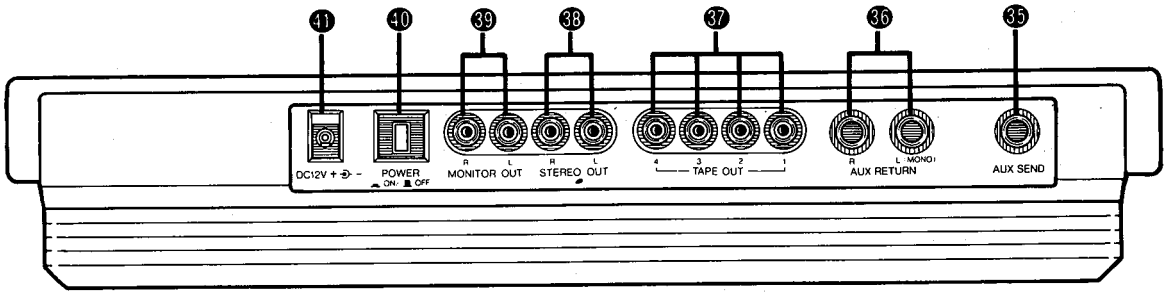
- Control Panel



- Front Panel



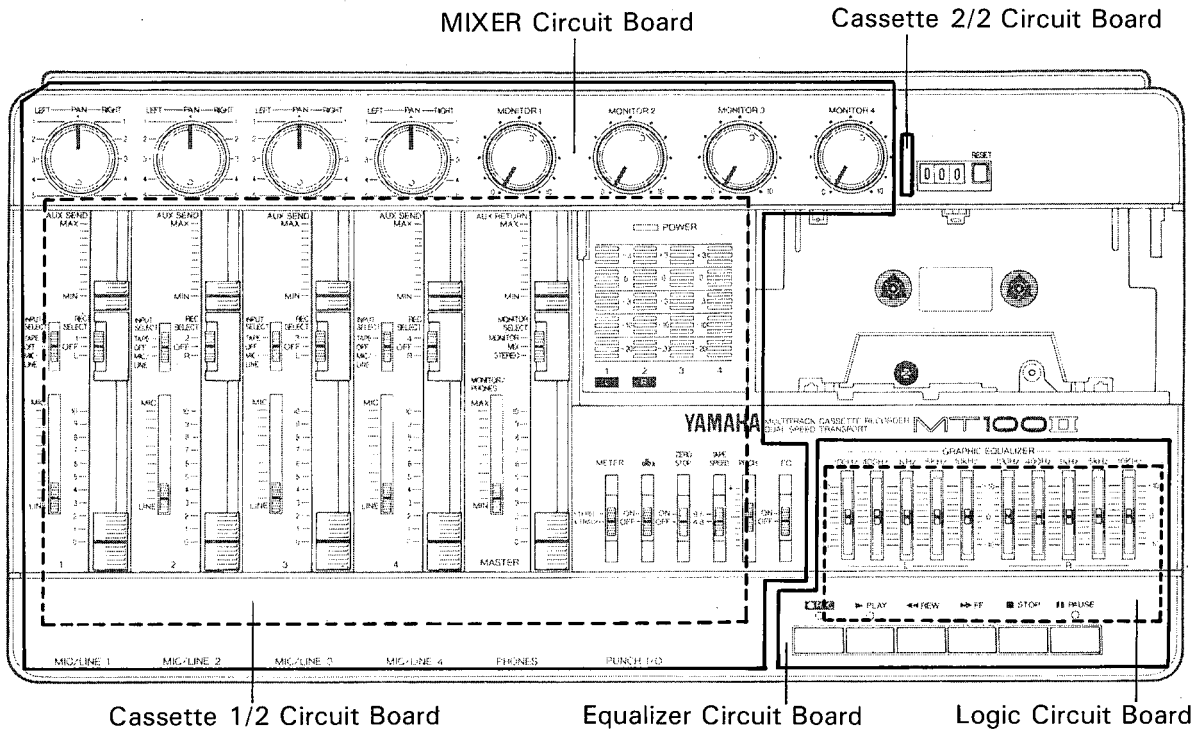
- Rear Panel



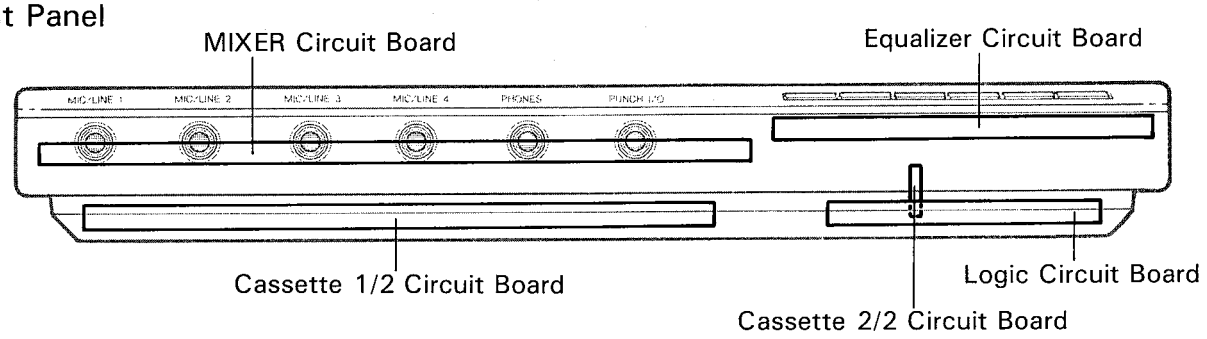
① INPUT SELECT Switch
② GAIN Controls
③ INPUT Faders
④ REC SELECT Switch
⑤ PAN Controls
⑥ AUX SEND Level Controls
⑦ AUX RETURN Level Controls
⑧ MONITOR SELECT Switch
⑨ MONITOR Level Controls (1 ~ 4)
⑩ MONITOR/PHONES Level Control
⑪ MASTER Fader
⑫ POWER Indicator
⑬ Peak Level Meters
⑭ METER Switch
⑮ dbx ON/OFF Switch
⑯ ZERO STOP Switch
⑰ TAPE SPEED Switch
⑱ PITCH Control
⑲ Equalizer Switch
⑳ GRAPHIC EQUALIZER
㉑ REC Button
㉒ REC Indicator
㉓ PLAY Button
㉔ PLAY Indicator
㉕ REW Button
㉖ FF Button
㉗ STOP Button
㉘ PAUSE Button
㉙ PAUSE Indicator
㉚ Tape Counter
㉛ Counter RESET Button
㉜ Input Jacks (MIC/LINE 1 ~ 4)
㉝ PHONES Jack
㉞ PUNCH I/O Footswitch Jack
㉟ AUX SEND Jack
㊱ AUX RETURN Jacks (L(MONO), R)
㊲ TAPE OUT jacks (1 ~ 4)
㊳ STEREO OUT Jacks (L, R)
㊴ MONITOR OUT Jacks (L, R)
㊵ POWER Switch
㊶ DC IN Jack (DC12V)

■CIRCUIT BOARD LAYOUT

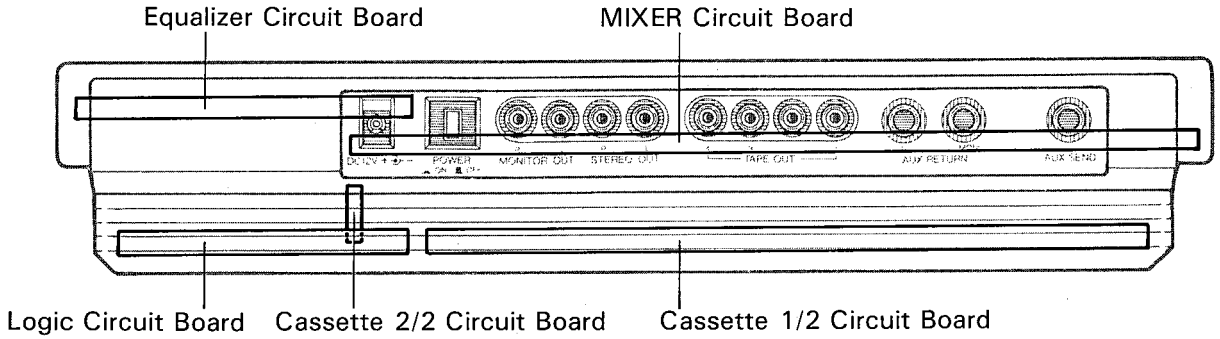
- Control Panel



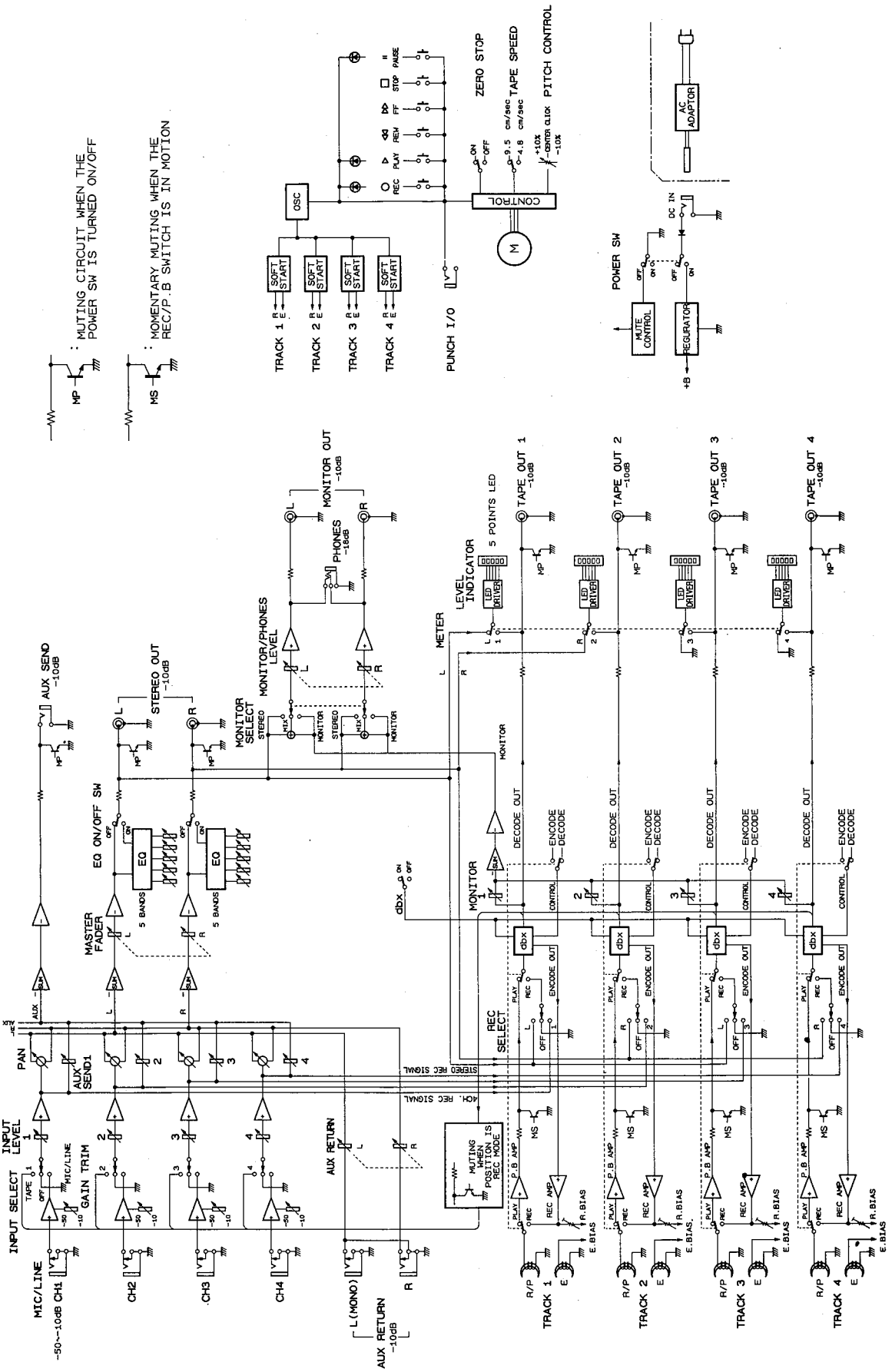
- Front Panel



- Rear Panel

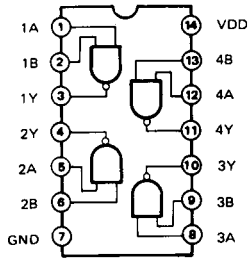


■BLOCK DIAGRAM

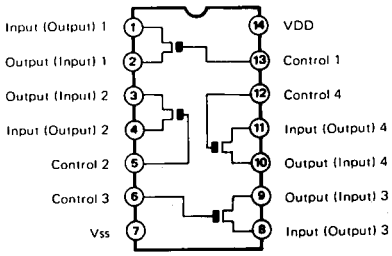


■IC BLOCK DIAGRAM

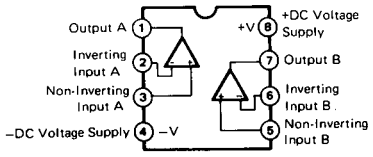
- **MCL4011B** (IX805400)
  Quad 2 Input NAND



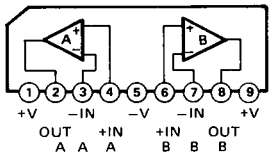
- **BU4066B** (IX607370)
  Quad Bilateral Switch



- **NJM4556D** (XA772001)
  Dual Operational Amplifier

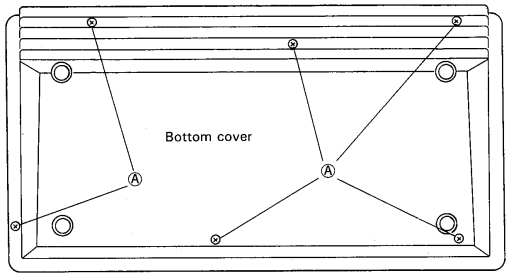


- **NJM2043SE** (XX808720)
  NJM4558SD (IX803430)
  LA6462S (IX805450)
  Dual Operational Amplifier



■DISASSEMBLY PROCEDURE

1. Removal of Top Cover (Refer to Fig. 1)
After the six (6) pan head tapping screws marked in the figure as Ⓐ (3.0 × 35) have been removed and disconnect the five (5) wire harnesses, the Top cover be removed.



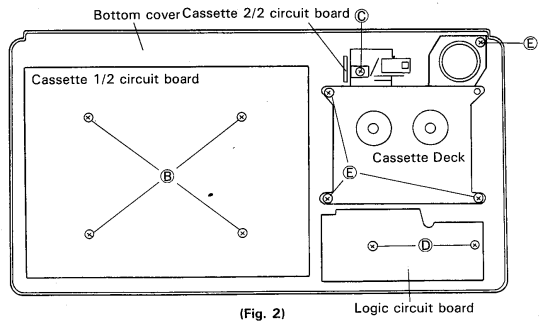
(図 1)

2. Removal of Cassette 1/2 Circuit Board (Refer to Fig. 2)
2-1. Remove the Top cover. (see procedure 1—removal of top cover)
2-2. After the four (4) blazed washer head tapping screws marked Ⓑ (3.0 × 8) have been removed, the Cassette 1/2 circuit board can be removed.

3. Removal of Cassette 2/2 Circuit Board (Refer to Fig. 2)
3-1. Remove the Top cover. (see procedure 1.)
3-2. After the bind head tapping screw marked Ⓒ (3.0 × 8) has been removed, the Cassette 2/2 circuit board can be removed.

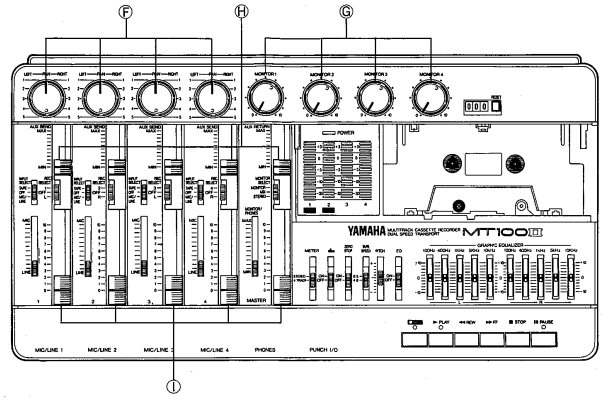
4. Removal of Logic Circuit Board (Refer to Fig. 2)
4-1. Remove the Top cover. (see procedure 1.)
4-2. After the two (2) blazed washer head tapping screws marked Ⓓ (3.0 × 8) have been removed, the Logic circuit board can be removed.

5. Removal of Cassette Deck (Refer to Fig. 2)
5-1. Remove the Top cover. (see procedure 1.)
5-2. After the four (4) bind head tapping screws marked Ⓔ (3.0 × 8) have been removed, the Cassette deck can be removed.



(Fig. 2)

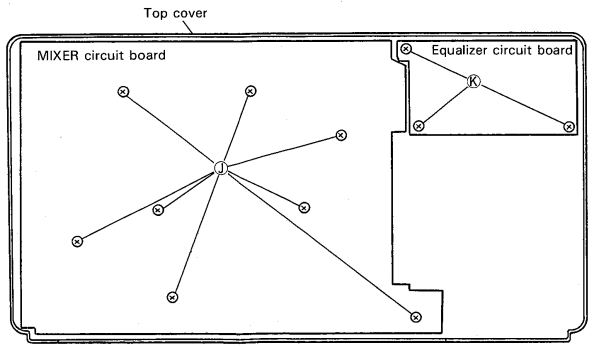
6. Removal of MIXER Circuit Board (Refer to Fig. 3 and Fig. 4)
6-1. Pull out the four (4) PAN control knobs marked Ⓕ , four (4) MONITOR level control knobs marked Ⓖ , five (5) AUX SEND level control knobs marked Ⓗ and five (5) fader knobs marked Ⓘ .



(Fig. 3)

6-2. Remove the Top cover. (see procedure 1.)
6-3. After the eight (8) bind head tapping screws marked Ⓙ (3.0 × 8) have been removed, the MIXER circuit board can be removed.

7. Removal of Equalizer Circuit Board (Refer to Fig. 4)
7-1. Remove the Top cover. (see procedure 1.)
7-2. After the three (3) bind head tapping screws marked Ⓚ (3.0 × 8) have been removed, the Equalizer circuit board can be removed.

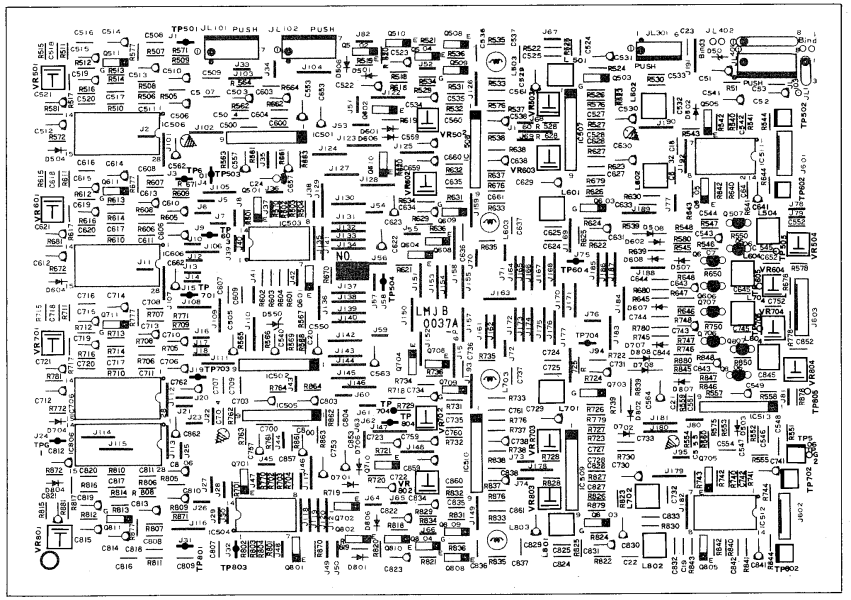


(Fig. 4)

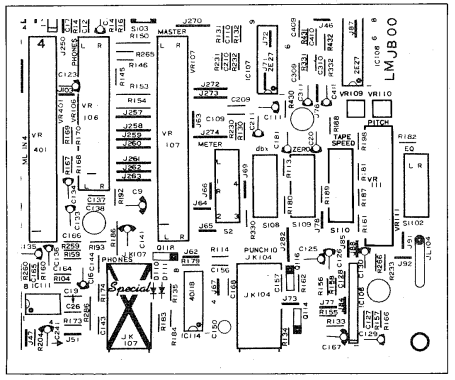
■ADJUSTMENT

1. Adjustment Point Locations

• Cassette Circuit Board



• MIXER Circuit Board



• Cassette Circuit Board

Item	Description
Test Point (TP)	TPG1, TP501, TP601, TP701, TP801 TPG2, TP502, TP602, TP702, TP802 TP503, TP603, TP703, TP803 TP504, TP604, TP704, TP804 TP505, TP605, TP705, TP805
Coil (L)	L501, L601, L701, L801 L502, L602, L702, L802 L504, L604, L704, L804
Trimmer Pot. (VR)	VR501, VR601, VR701, VR801 VR502, VR602, VR702, VR802 VR503, VR603, VR703, VR803 VR504, VR604, VR704, VR804

• MIXER Circuit Board

Item	Description
Slide Pot. (VR)	VR111 (PITCH)
Trimmer Pot (VR)	VR109, VR110
Slide Switch (S)	S110 (TAPE SPEED)

2. Preparation of Instrument

AF oscillator, Oscilloscope, Frequency counter
Wow/flutter meter, AC valve voltmeter, DC millival
Test tape ..... MTT-114N (Azimuth) 10 KHz (TX911850)
MTT-212CN (315 Hz) (TX911840)
MTT-111DN (3 KHz) (TX911820)
SA46 (CrO_2 REC/PB) (TX911750)

3. Adjustment Point

Item		CH 1	CH 2	CH 3	CH 4
1. dbx voltage adjustment (VR)		VR. 501	VR. 601	VR. 701	VR. 801
Test point (DC voltage)		TP. 501	TP. 601	TP. 701	TP. 801
Test point (Output voltage)		TP. 503	TP. 603	TP. 703	TP. 803
2. Erase bias adjustment (Coil)		L. 504	L. 604	L. 704	L. 804
Test point (Output voltage)		TP. 505	TP. 605	TP. 705	TP. 805
3. Record amplifier bias trap adjustment (Coil)		L. 502	L. 602	L. 702	L. 802
Test point (Output voltage)		TP. 504	TP. 604	TP. 704	TP. 804
4. Record bias adjustment (VR)		VR. 504	VR. 604	VR. 704	VR. 804
Test point (Output voltage)		TP. 502	TP. 602	TP. 702	TP. 802
5. Record level adjustment (VR)		VR. 502	VR. 602	VR. 702	VR. 802
Test point (Output voltage)		TP. 502	TP. 602	TP. 702	TP. 802
Test point (Signal stop)		TP. 506			
6. Playback amplifier bias trap adjustment (Coil)		L. 501	L. 601	L. 701	L. 801
Test point (Output voltage)		TP. 503	TP. 603	TP. 703	TP. 803
7. Playback amplifier output level adjustment (VR)		VR. 503	VR. 603	VR. 703	VR. 803
Test point (Output voltage)		TP. 503	TP. 603	TP. 703	TP. 803
8. Tape speed adjustment (VR)	9.5 cm/s	VR. 110			
* PITCH control (VR. 111) : center	4.8 cm/s	VR. 109			

4. Cassette Section Adjustments

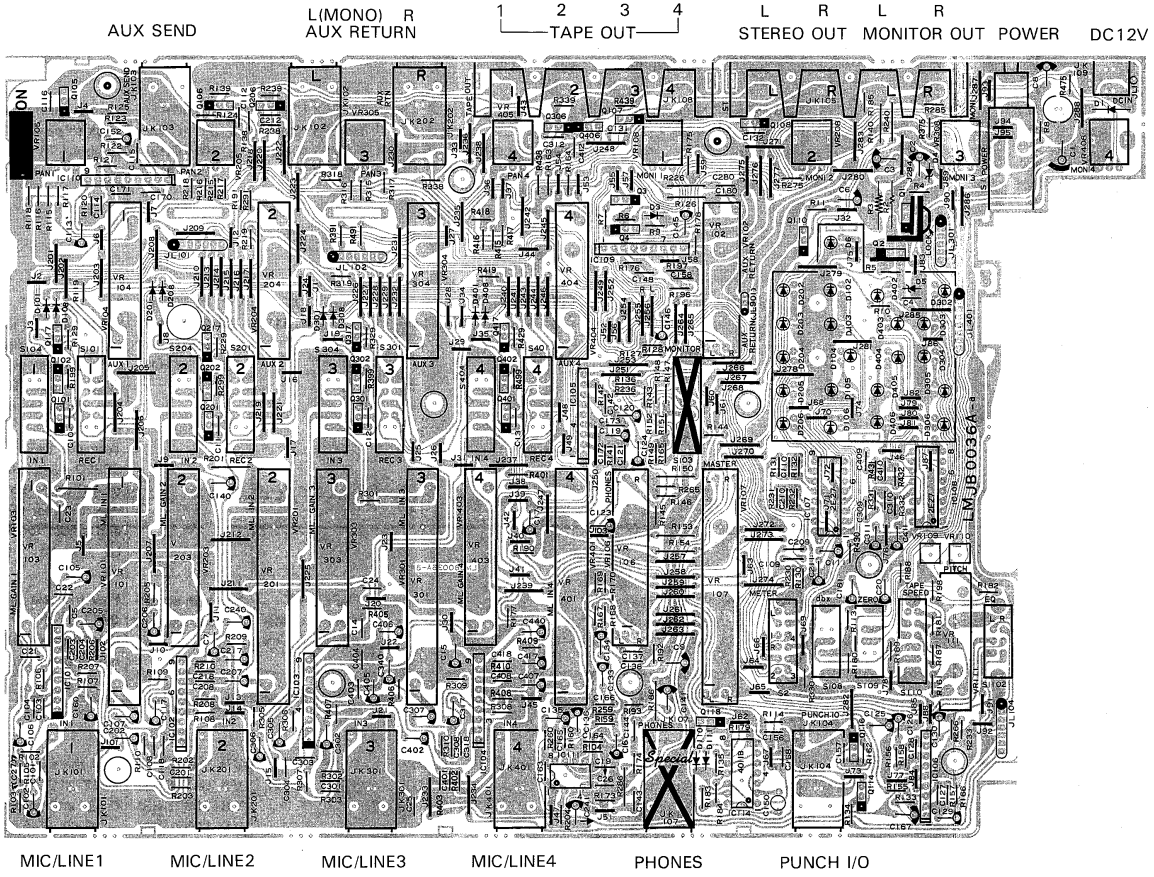
Adjustment	Equipment Required	Control/Switch Settings	Measure at	Adjust	Rating
dbx	DC millival AC valve voltmeter	• AUX RTN Fader : max • MASTER Fader : max • dbx Switch : on • Cassette REC Button: on	TP. 501 (CH1) TP. 601 (CH2) TP. 701 (CH3) TP. 801 (CH4) TPG1 TP. 503 (CH1) TP. 603 (CH2) TP. 703 (CH3) TP. 803 (CH4) TPG2	VR. 501 (CH1) VR. 601 (CH2) VR. 701 (CH3) VR. 801 (CH4)	Apply a 1 KHz signal to the AUX RTN jack and adjust the AUX RTN to obtain a signal of 90 mV at the test points. Adjust for DC millival reading of 18.4 mV ± 0.4 mV.
Erase bias	Oscilloscope	• REC. SELECT Switch : on (1 ~ 4) • Cassette REC Button : on	TP. 505 (CH1) TP. 605 (CH2) TP. 705 (CH3) TP. 805 (CH4)	L. 504 (CH1) L. 604 (CH2) L. 704 (CH3) L. 804 (CH4)	Adjust for maximum peak to peak voltage (6—8V) at 73—83 KHz.
Record amplifier bias trap	Oscilloscope	• REC. SELECT Switch : on (1 ~ 4) • Cassette REC Button : on	TP. 504 (CH1) TP. 604 (CH2) TP. 704 (CH3) TP. 804 (CH4)	L. 502 (CH1) L. 602 (CH2) L. 702 (CH3) L. 802 (CH4)	Adjust for minimum peak to peak voltage at about 78 KHz
Record bias	AC valve voltmeter	• REC. SELECT Switch : on (1 ~ 4) • Cassette REC Button : on	TP. 502 (CH1) TP. 602 (CH2) TP. 702 (CH3) TP. 802 (CH4)	VR. 504 (CH1) VR. 604 (CH2) VR. 704 (CH3) VR. 804 (CH4)	Adjust for voltmeter reading of 4.8 mV (480 μA) at about 78 KHz.
Record level	AC valve voltmeter AF oscillator	• REC. SELECT Switch : on (1 ~ 4) • Cassette REC Button : on	TP. 502 (CH1) TP. 602 (CH2) TP. 702 (CH3) TP. 802 (CH4) TP. 506 (CH1 ~ CH4)	VR. 502 (CH1) VR. 602 (CH2) VR. 702 (CH3) VR. 802 (CH4)	Apply 1 KHz signals to the input terminals. Adjust the channel faders so that the output level at the TAPE OUT becomes −10 dB (245 mV). Connect the test point (TP. 506) to the ground and adjust for voltmeter reading of 0.55 mV (55μA, 10Ω).

Adjustment	Equipment Required	Control/Switch Settings	Measure at	Adjust	Rating
Playback amplifier bias trap	Oscilloscope	• Cassette REC Button : on • REC. SELECT Switch for CH1 : off • REC. SELECT Switch for CH2 ~ CH4 : on • CH2 ~ CH4 are adjusted the same as CH1.	TP. 503 (CH1) TP. 603 (CH2) TP. 703 (CH3) TP. 803 (CH4)	L. 501 (CH1) L. 601 (CH2) L. 701 (CH3) L. 801 (CH4)	Adjust for minimum peak to peak voltage at about 78 KHz.
Tape speed	Wow/flutter meter Frequency counter Test tape (MTT-111DN 3 KHz)	• PITCH control (VR. 111) : center (click)	TAPE OUT (CH1)	VR. 110 (High) (CH1 ~ CH4) VR. 109 (Low) (CH1 ~ CH4)	Turn the TAPE SPEED switch (S110) to 9.5 cm/s (High). Play the test tape (MTT-111DN 3 KHz) and adjust for 6000 Hz ± 10 Hz. Turn the TAPE SPEED switch (S110) to 4.8 cm/s (Low). Play the test tape and adjust for 3000 Hz ± 10 Hz.
Azimuth	AC valve voltmeter Oscilloscope Test tape (MTT-114N 10 KHz)		TAPE OUT (CH1 ~ CH4)	Azimuth adjustment screw	Play the test tape (MTT-114N 10 KHz) and adjust for maximum output.
Playback amplifier level	AC valve voltmeter Test tape (MTT-212CN 315 Hz)	• dbx Switch : off • RL : 10 kΩ	TAPE OUT (CH1 ~ CH4)	VR. 503 (CH1) VR. 603 (CH2) VR. 703 (CH3) VR. 803 (CH4)	Play the test tape (MTT-212CN 315 Hz 0 dB) and adjust for −10 dB (245 mV).
dbx ON/OFF	Oscilloscope	• TAPE OUT level: −30 dB	TAPE OUT (CH1 ~ CH4) TP. 501 (CH1 ~ CH4)	VR. 502 (CH1) VR. 602 (CH2) VR. 702 (CH3) VR. 802 (CH4)	Turn the dbx switch on and adjust for ± 3.5 dB at 1 KHz.

MT100II

■ CIRCUIT BOARDS

● MIXER Circuit Board



Components side

· MIXER

Connector	Destination
JL101	Cassette 1/2-JL101
JL102	Cassette 1/2-JL102
JL104	Equlizer-JL104
JL301	Cassette 1/2-JL301
JL401	Cassette 1/2-JL401

Notes)

Circuit Board: MIXER (NX809130) LMJB0036A-a

1. IC
   - IC101, 103: SVINJM2043SE (XX808720) OP AMP.
   - IC102, 104~106, 109, 110: NJM4558SD (IX803430) OP AMP.
   - IC107, 108: IR2E27A (IX803210) LED
   - IC111: NJM4556D (XA772001) OP. AMP.
   - IC114: MLC4011B (IX805400) NAND

2. Transistor
   - Q1, 2: 2SD2012 (IX803230)
   - Q3: 2SA1309R-TA (IX802240)
   - Q4: 2SC3311S-TA (IX801680)
   - Q101, 201, 301, 401, 105~108, 206, 306, 406: 2SD1915-T (IX803460)
   - Q102, 202, 302, 402, 117, 217, 317, 417, 114, 118: UN4111-TA (IX803440)
   - Q110: 2SD400 F, G-MP (ID040030)
   - Q116: DTC114ESPTA (IX607610)

3. Diode
   - D1: 1SR35200AT (IX600740)
   - D3, 101, 201, 301, 401, 110, 111: MA165TA (IX602480)

4. Zener Diode
   - D4, 5: MA4091MTA (IX805410)

5. LED
   - D6, 102, 202, 302, 402, 103, 203, 303, 403: SLR-33VC3F (IX805420) Red
   - D104~106, 204~206, 304~306, 404~406: LT3H437 (IX805430) Yellow

6. Slide Pot.
   - VR101, 201, 301, 401: PSVS451AA14 10KA (HX802490) MIC/LINE IN Faders
   - VR102: PSVS252AA14 10KAX2 (HX802520) AUX RTN
   - VR103, 203, 303, 403: PSVS301AA15 100KA (HX805940) MIC/LINE GAIN 1~4
   - VR104, 204, 304, 404: PSVS251AA14 10KA (HX802500) AUX SEND
   - VR106: PSVS302AA14 10KAX2 (HX805950) MONITOR/PHONES
   - VR107: PSVS452AA14 10KAX2 (HX802530) MASTER Fader
   - VR111: PSVS201AA14 10KB (HX802540) PITCH

7. Rotary Pot.
   - VR105, 205, 305, 405: EVUF2AF20B14 10KB (HX805960) PAN
   - VR108, 208, 308, 408: EVUF2AF20A54 50KA (HX805970) MONITOR

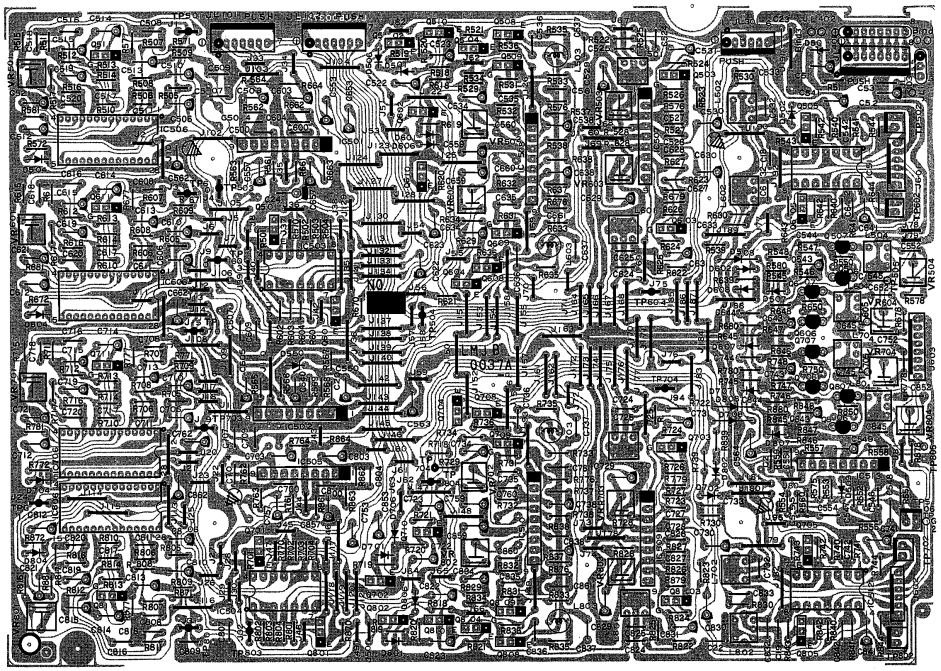
8. Trimmer Potentiometer
   - VR109, 110: EVND4AA00B14 10K (XX808860) TAPE SPEED adj.

9. Switch
   - S1: SSHK61 (KX801040) POWER
   - S2, 110: PSSSK18 (KX801050) METER, TAPE SPEED
   - S101, 201, 301, 401, 104, 204, 304, 404: PSSSK17 REC. (KX801060) INPUT SELECT
   - S103: LMSS3B004A (KX802630) MONITOR SELECT
   - S108, 109, 1102: PSSSK19 (KX801070) dbx, ZERO STOP, EQ

10. Jack
    - JK101~103, 201, 202, 301, 401: LMJJ61SS03 (LX802270) MIC/LINE 1~4 Input
    - JK104: LMJJ61S06 (LX802300) PUNCH I/O
    - JK105, 108: LMJJ34MS04 (LX802280) 4P Output
    - JK107: SJJ134B (LX802260) PHONES
    - JK109: VJSS0360 (LX802290) DC 12V

MT100II

• Cassette 1/2 Circuit Board



Components side

Notes)

Circuit Board: Cassette 1/2 (NX809150) LMJB0037A-a

1. IC
   - IC501, 505, 508, 510: NJM4558SD (IX803430) OP AMP.
   - IC502, 513: SVINJM2043SE (XX808720) OP AMP.
   - IC503, 504: BU4066B (IX607370) SWITCH
   - IC506, 606, 706, 806: AN6292NK (IX803220) dbx
   - IC507, 509: LA6462S (IX805450) HEAD AMP.
   - IC511, 512: μPC1290C (XA508001) SWITCH

2. Transistor
   - Q501, 601, 701, 801, 502, 602, 702, 802, 504, 604, 704, 804: UN4214-TA (IX803450) Digital Transistor
   - Q505, 605, 705, 805, 508, 608, 708, 808: 2SC3311S-T (IX801680)
   - Q506, 606, 706, 806, 507, 607, 707, 807: 2SC1383-Q (XX808800)
   - Q510, 610, 710, 810: 2SC2878 B (IX800060)

3. FET
   - Q503, 603, 703, 803, 509, 609, 709, 809, 511, 611, 711, 811: 2SK655-T (IX803480)

4. Diode
   - D501, 601, 701, 801, 502, 602, 702, 802, 504, 604, 704, 804, 506, 606, 706, 806, 507, 607, 707, 807, 503, 608: MA165 TA5 (IX602480)
   - D508, 708, 808: MA150 TA5 (IF990530)

5. Zener Diode
   - D50: MA4075MTA (IX604630)

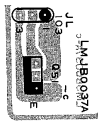
6. Trimmer Potentiometer
   - VR501, 601, 701, 801: EVND4AA00B53 (VD735100) dbx adj.
   - VR502, 602, 702, 802: EVND4AA00B14 (HX804870) Rec Gain adj.
   - VR503, 603, 703, 803: EVND4AA00B22 (HX805990) Play back Gain adj.
   - VR504, 604, 704, 804: EVN61AA00B54 (HX551750) Rec Bias adj.

7. Coil
   - L501, 601, 701, 801, 502, 602, 702, 802: PSLC01T (GX801280) Bias Trap
   - L503, 603, 703, 803: QLQX2422T (GX801300) Rec EQ
   - L504, 604, 704, 804: PSLE01T (GX801290) Bias Drive

· Cassette 1/2

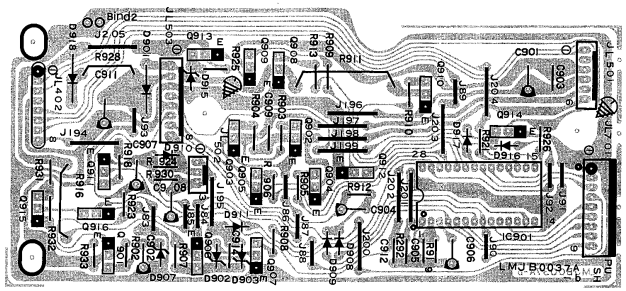
Connector	Destination
JL101	MIXER-JL101
JL102	MIXER-JL102
JL103	Cassette 2/2-JL103
JL301	MIXER-JL301
JL401	MIXER-JL401
JL402	Logic-JL402
J601	Rec/PB Head Ch1&2
J602	Rec/PB Head Ch3&4
J603	Erase Head

• Cassette 2/2 Circuit Board



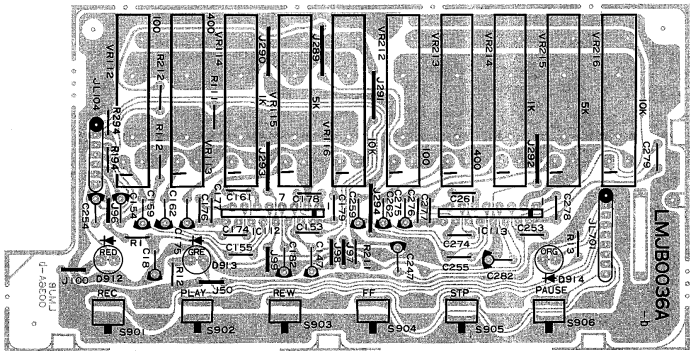
Components side

• Logic Circuit Board



Components side

• Equalizer Circuit Board



Components side

Notes)

Circuit Board: Cassette 2/2 (NX809150) LMJB0037A-c

1. Transistor
   Q51: 2SD2012 (IX803230)

· Cassette 2/2

Connector	Destination
JL103	Cassette 1/2-JL103

Notes)

Circuit Board: Logic (NX809160) LMJB0037A-b

1. IC
   IC901: TC9310N-064 (IX801040) MECA
2. Transistor
   Q901, 904, 905, 908, 910, 913: 2SD1225M QR (IX601880)
   Q902, 903, 909: 2SB909M (IX606750)
   Q906: 2SD2012 (IX803230)
   Q907, 911: 2SC3311S-TA (IX801680)
   Q912, 914: UN4214-TA (IX803450) Digital Transistor
   Q915: 2SA1309R-TA (IX802240)
   Q916: DTC143ES TA (IX607680) Digital Transistor
3. Diode
   D901, 918: 1SR35-200AT 1A (IX606740)
   D908~911, 916, 917: MA165 TA5 (IX602480)
4. Zener Diode
   D902: MA4033MTA (IX805460)
   D903, 907: MA4062MTA (IX604600)
   D915: MA4150MTA (IX801800)
5. Metal Film Resistor
   R911: ERG2ANJP560S (HX806000)
   R916: ERG1ANJP390S (HX806010)
   R928: ERG1ZSJ100P (HX806020)
6. Electrolytic Cap.
   C911: ELEA1CU471E (UW938470) 470μF 16.0V

· Logic

Connector	Destination
JL402	Cassette 1/2-JL402
JL501	Motor
JL502	DN6851
JL503	Counter SW, Leaf SW Rec SW, Play/Stop SW
JL701	Equalizer-JL701

Notes)

Circuit Board: Equalizer (NX809140) LMJB0036A-b

1. IC
   IC112, 113: TA7796Z (IX805440) GE
2. LED
   D912: LN221RPH (IX803530) Red
   D913: LN421YPH (IX803280) Orange
   D914: LN321GPH (IX803270) Green
3. Slide Pot.
   VR112~116, 212~216: PSVS201AG15 100KG (HX805980) GRAPHIC EQ.
4. Switch
   S901~906: EVQ-QS405 (KX802640)

· Equalizer

Connector	Destination
JL104	MIXER-JL104
JL701	Logic-JL701

MULTITRACK CASSETTE RECORDER

MT100II

PARTS LIST

Notes DESTINATION ABBREVIATIONS

J : Japanese model	A : Australian model
U : U.S. model	E : European model
C : Canadian model	D : West German model
X : General model	B : British model
M : South African model	I : Indonesian model
H : North European model	

■ELECTRICAL PARTS

	Ref. No.	Part No.	Description		部品名	Remarks	ランク
*		NX809130	Circuit Board	Mixer	ミキサーシート	LMEP0031A-a	
*		NX809140	Circuit Board	Equalizer	イコライザーシート	LMEP0031A-b	
*		NX809150	Circuit Board	Cassette	カセットシート	LMEP0032A	
			Circuit Board	Cassette 1/2	カセット1／2シート	LMEP0032A-a	
			Circuit Board	Cassette 2/2	カセット2／2シート	LMEP0032A-c	
*		NX809160	Circuit Board	Logic	ロジックシート	LMEP0032A-b	
*		NX809130	Circuit Board	Mixer	ミキサーシート	LMEP0031A-a	
		XX808720	IC	SVINJM2043SE	IC	OP AMP.	06
		IX803430	IC	NJM4558SD	IC	OP AMP.	03
		XA772001	IC	NJM4556D	IC	OP AMP.	03
*		IX805400	IC	MLC4011B	IC	NAND	
		IX803210	IC	IR2E27A	IC	LED	05
		IX803440	Transistor	UN4111-TA	トランジスタ		01
		IX803460	Transistor	2SD1915-T	トランジスタ		01
		IX801680	Transistor	2SC3311S-TA	トランジスタ		03
		IX802240	Transistor	2SA1309R-TA	トランジスタ		01
		IX803230	Transistor	2SD2012	トランジスタ		02
		IX607610	Transistor	DTC114ESPTA	トランジスタ		03
		ID040030	Transistor	2SD400 F,G-MP	トランジスタ		03
		IX602480	Diode	MA165TA	ダイオード		01
		IX600740	Diode	ISR35200AT	ダイオード		03
*		IX805410	Zener Diode	MA4091MTA	ツェナーダイオード		
*		IX805420	LED	SLR-33VC3F	LED	Red	
*		IX805430	LED	LT3H437	LED	Yellow	
		HX802490	Slide Pot. A10K	PSVS451AA14	スライドボリューム	M/L IN Faders	04
		HX802500	Slide Pot. A10K	PSVS251AA14	スライドボリューム	AUX SEND	04
		HX802520	Slide Pot. A10KX2	PSVS252AA14	スライドボリューム	AUX RTN	05
		HX802530	Slide Pot. A10KX2	PSVS452AA14	スライドボリューム	MASTER Fader	05
		HX802540	Slide Pot. B10K	PSVS201AA14	スライドボリューム	PITCH	04
*		HX805940	Slide Pot. A100K	PSVS301AA15	スライドボリューム	MIC/LINE GAIN	
*		HX805950	Slide Pot. A10KX2	PSVS302AA14	スライドボリューム	MONITOR/PHONES	
*		HX805960	Rotary Pot. B10K	EVUF2AF20B14	ロータリーボリューム	PAN	
*		HX805970	Rotary Pot. A50K	EVUF2AF20A54	ロータリーボリューム	MONITOR	
		XX808860	Trimmer Potentiometer 10K	EVND4AA00B14	半固定ボリューム	Tape Speed Adj.	01
		KX801040	Switch	SSHK61	スイッチ	POWER	04
		KX801050	Switch	PSSSK18	スイッチ	METER,TAPESPEED	03
		KX801060	Switch	PSSSK17 REC.	スイッチ	INPUT SELECT	03
		KX801070	Switch	PSSSK19	スイッチ	dbx,ZEROSTOP,EQ	03
*		KX802630	Switch	LMSS3B004A	スイッチ	MONITOR SELECT	
*		LX802260	Jack	SJJ134B	ジャック	PHONES	
*		LX802270	Jack	LMJJ61SS03	ジャック	MIC/LINE Input	
*		LX802280	Jack	LMJJ34MS04	ジャック	4P Output	
*		LX802290	Jack	VJSS0360	ジャック	DC 12V	
*		LX802300	Jack	LMJJ61S06	ジャック	PUNCH I/O	
*		NX809140	Circuit Board	Equalizer	イコライザーシート	LMEP0031A-b	
*		IX805440	IC	TA7796Z	IC	GE	
		IX803530	LED	LN221RPH	LED	Red	01
		IX803270	LED	LN321GPH	LED	Green	01
		IX803280	LED	LN421YPH	LED	Orange	02
*		HX805980	Slide Pot. G100K	PSVS201AG15	スライドボリューム	LMRV20S08B14 EQ	
*		KX802640	Switch	EVQ-QS405	スイッチ		01
			Circuit Board	Cassette 1/2	カセット1／2シート	LMEP0032A-a	
		XX808720	IC	SVINJM2043SE	IC	OP AMP.	06
		IX803430	IC	NJM4558SD	IC	OP AMP.	03
		IX607370	IC	BU4066B	IC	SWITCH	05
		IX803220	IC	AN6292NK	IC	dbx	10
		XA508001	IC	μPC1290C	IC	SWITCH	04
*		IX805450	IC	LA6462S	IC	HEAD AMP.	
		IX803450	Transistor	UN4214-TA	トランジスタ		01
		IX801680	Transistor	2SC3311S-T	トランジスタ		03
		XX808800	Transistor	2SC1383-Q	トランジスタ		03
		IX803230	Transistor	2SD2012	トランジスタ		02
		IX800060	Transistor	2SC2878 B	トランジスタ		03
		IX803480	FET	2SK655-T	FET		02
		IX602480	Diode	MA165 TA5	ダイオード		01
		IF990530	Diode	MA150 TA5	ダイオード		01
		IX604630	Zener Diode	MA4075MTA	ツェナーダイオード		03
		HX551750	Trimmer Potentiometer	EVN61AA00B54	半固定ボリューム	Rec Bias	01
		HX804870	Trimmer Potentiometer	EVND4AA00B14	半固定ボリューム	Rec Gain	01
		VD753100	Trimmer Potentiometer	EVND4AA00B53	半固定ボリューム	dbx Adj.	
*		HX805990	Trimmer Potentiometer	EVND4AA00B22	半固定ボリューム	Playback Gain	
		GX801280	Coil	PSLC01T	コイル	Bias Trap	04
		GX801290	Coil	PSLE01T	コイル	Bias Drive	04
		GX801300	Coil	QLQX2422T	コイル	Rec EQ	03
			Circuit Board	Cassette 2/2	カセット2／2シート	LMEP0032A-c	

* New Parts (新規部品)

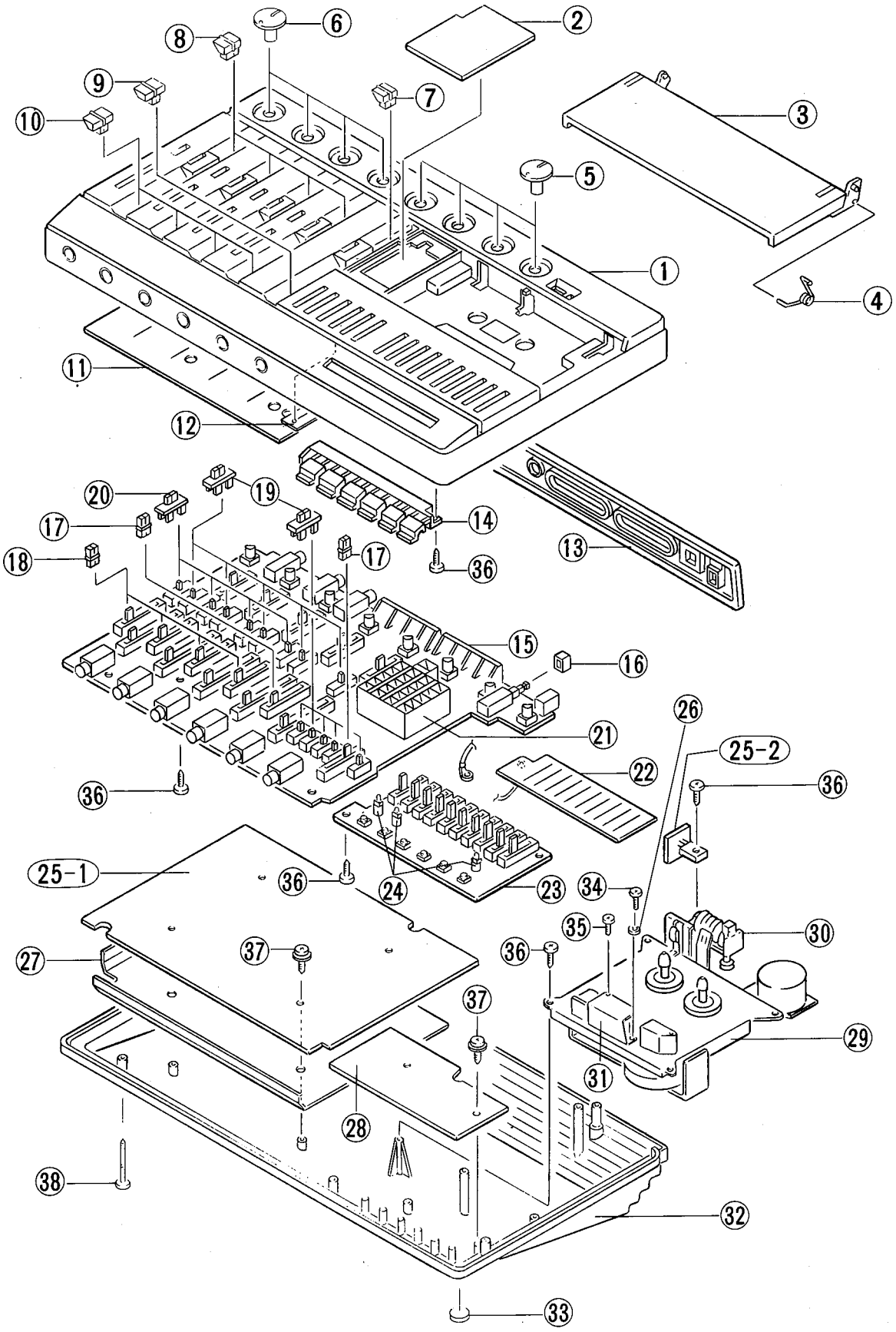
ランク：Japan only

Ref. No.	Part No.	Description		部品名	Remarks	ランク
	IX803230	Transistor	2SD2012	トランジスタ		02
*	NX809160	Circuit Board	Logic	ロジックシート	LMEP0032A-b	
	IX801040	IC	TC9310N-064	IC	MECA	09
	IX803230	Transistor	2SD2012	トランジスタ		02
	IX802240	Transistor	2SA1309R-TA	トランジスタ		01
	IX801680	Transistor	2SC3311S-TA	トランジスタ		03
	IX606750	Transistor	2SB909M	トランジスタ		03
	IX601880	Transistor	2SD1225M QR	トランジスタ		03
	IX803450	Digital Transistor	UN4214-TA	デジタルトランジスタ		01
	IX607680	Digital Transistor	DTC143ES TA	デジタルトランジスタ		03
	IX602480	Diode	MA165 TA5	ダイオード		01
	IX606740	Diode	1SR35-200AT 1A	ダイオード		02
	IX801800	Zener Diode	MA4150MTA	ツェナーダイオード		01
*	IX805460	Zener Diode	MA4033MTA	ツェナーダイオード		
*	HX806000	Metal Film Resistor	ERG2ANJP560S	金属皮膜抵抗		
*	HX806010	Metal Film Resistor	ERG1ANJP390S	金属皮膜抵抗		
*	HX806020	Metal Film Resistor	ERG1ZSJ100P	金属皮膜抵抗		
	UW938470	Electrolytic Cap.	ELEA1CU471E	ケミコン	470μF 16.0V	02
	GX801310	Motor	MMU-5U2RWJ	モーター		09
*	GX802480	Rec/Playback Head	LMBRA00001N	録再ヘッド		
*	GX802490	Erase Head	LMBRA00002N	消去ヘッド		
*	PX800070	Tape Counter	RSEK-6ZA	カウンター		

* New Parts (新規部品)

ランク : Japan only

■OVERALL ASSEMBLY

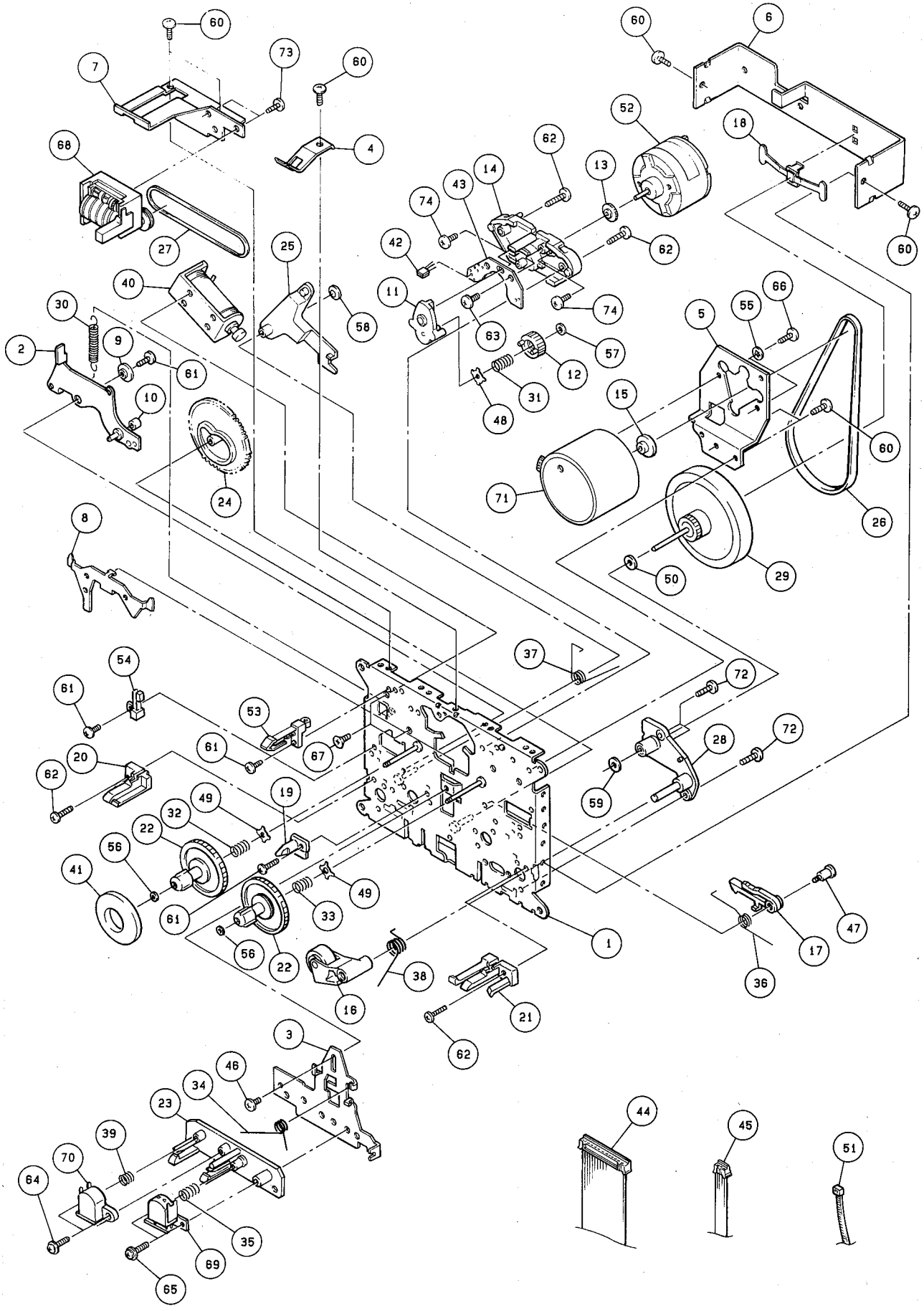


	Ref. No.	Part No.	Description		部品名	Remarks	ランク
*	1		Top Cover	RKMK64ZA	上キャビネット	J	
*	1	CX810530	Top Cover	RKMK64YA	上キャビネット	U,C,H,B,D,X	
*	2	CX810540	Indicator Plate	PGPK90ZA	化粧板	Peak Meters	
*	3	CX810550	Cassette Door	PKGK55ZA	カセット扉		
*	4	AX808570	Spring	RUWK109ZA	コイルバネ		
	5	CX805500	Rotary Knob	PSBNK51 RE	ロータリーツマミ	MONITOR	02
	6	CX807550	Rotary Knob	PSBNK51C GY	ロータリーツマミ	PAN	02
	7	CX807580	Slide Knob	PSBDK26 RE	スライドツマミ	AUX RETURN	02
	8	CX807590	Slide Knob	PSBDK26C GY	スライドツマミ	AUX SEND	02
	9	CX807560	Slide Knob	PSBDK25 RE	スライドツマミ	MASTER Fader	02
	10	CX807570	Slide Knob	PSBDK25C GY	スライドツマミ	Faders 1-4	02
*	11	CX810560	Shield Sheet A, Volume	LMSC003	ボリューム飾り(A)		
*	12	CX810580	Shield Sheet C, Volume	RGEK70ZA	ボリューム飾り(C)	PITCH	
*	13	AX808580	Rear Panel	PKEK21ZA	リアパネル		
	14	CX805510	Cassette Button	PSBCK84	カセットボタン		03
*	15	NX809130	Circuit Board	Mixer	ミキサーシート	LMEP0031A-a	
	16	CX804280	Push Knob	PSBCK46 BL	プッシュツマミ	POWER	01
	17	CX807630	Slide Knob	PSBDK27 RE	スライドツマミ	MONITOR,PITCH	02
	18	CX807640	Slide Knob	PSBDK27C GY	スライドツマミ	MIC/LINE Input	02
	19	CX807650	Switch Knob	PSBDK28-1 RE	スイッチツマミ	REC SELECT	02
	20	CX807660	Switch Knob	PSBDK28-1C GY	スイッチツマミ	INPUT SELECT	02
*	21	CX810590	LED Holder	RMPK17ZA	LEDホルダー	Peak Meters	
*	22	CX810570	Shield Sheet B, Volume	RMCK54ZA	ボリューム飾り(B)	Equalizer	
*	23	NX809140	Circuit Board	Equalizer	イコライザーシート	LMEP0031A-b	
*	24	CX810600	LED Holder	RMPK19ZA	LEDホルダー	REC,PLAY,PAUSE	
*	25	NX809150	Circuit Board	Cassette	カセットシート	LMEP0032A	
	25-1		Circuit Board	Cassette 1/2	カセット1／2シート	LMEP0032A-a	
	25-2		Circuit Board	Cassette 2/2	カセット2／2シート	LMEP0032A-c	
	26	EV300206	Spring Washer		バネ座金	φ2.0 ZMC2Y	01
*	27	CX810620	Shield Sheet, Bottom Cover	LMSC0004	底キャビシールド板		
*	28	NX809160	Circuit Board	Logic	ロジックシート	LMEP0032A-b	
*	29	NX809100	Cassette Deck	RJDK3501ZA	デッキ		
*	30	PX800070	Tape Counter	RSEK-6ZA	カウンター		
*	31	CX810610	Shield, Head	RMCK56ZA	ヘッドシールド板		
*	32		Bottom Cover	RKFK60ZA	底キャビネット		
*	32	CX810640	Bottom Cover	RKFK60YA	底キャビネット	MT-1001I	
*	33	CX810650	Foot	RHGK721ZA	スベリ座		
	34	EA020066	Pan Head Screw	XSB2+6(XYNZ+C6)	ナベ小ネジ	2.0X6 ZMC2Y	01
	35	EI020066	Bind Head Tapping Screw	XTNZ+5J	ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞﾈｼﾞ	2.0X6 ZMC2Y	01
	36	EI030086	Bind Head Tapping Screw	XTV(B)3+8G	ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞﾈｼﾞ	3.0X8 ZMC2Y	01
	37	EX600700	BW Head Tapping Screw	XTW3+8U	BWﾍｯﾄﾞﾀｯﾋﾟﾝｸﾞﾈｼﾞ	3.0X8 CU	01
	38	EJ030306	Pan Head Tapping Screw	XTN3+30G	ナベタッピングネジ	3.0X30 ZMC2Y	01
			Accessory		付属品		
		GX801340	AC Adaptor	PA-100J	電源アダプター	J	15
		GX801380	AC Adaptor	PA-100U	電源アダプター	U	14
		GX801390	AC Adaptor	PA-100C	電源アダプター	C	17
		GX801400	AC Adaptor	PA-100S	電源アダプター	H,B,D	16

* New Parts (新規部品)

ランク：Japan only

■CASSETTE DECK

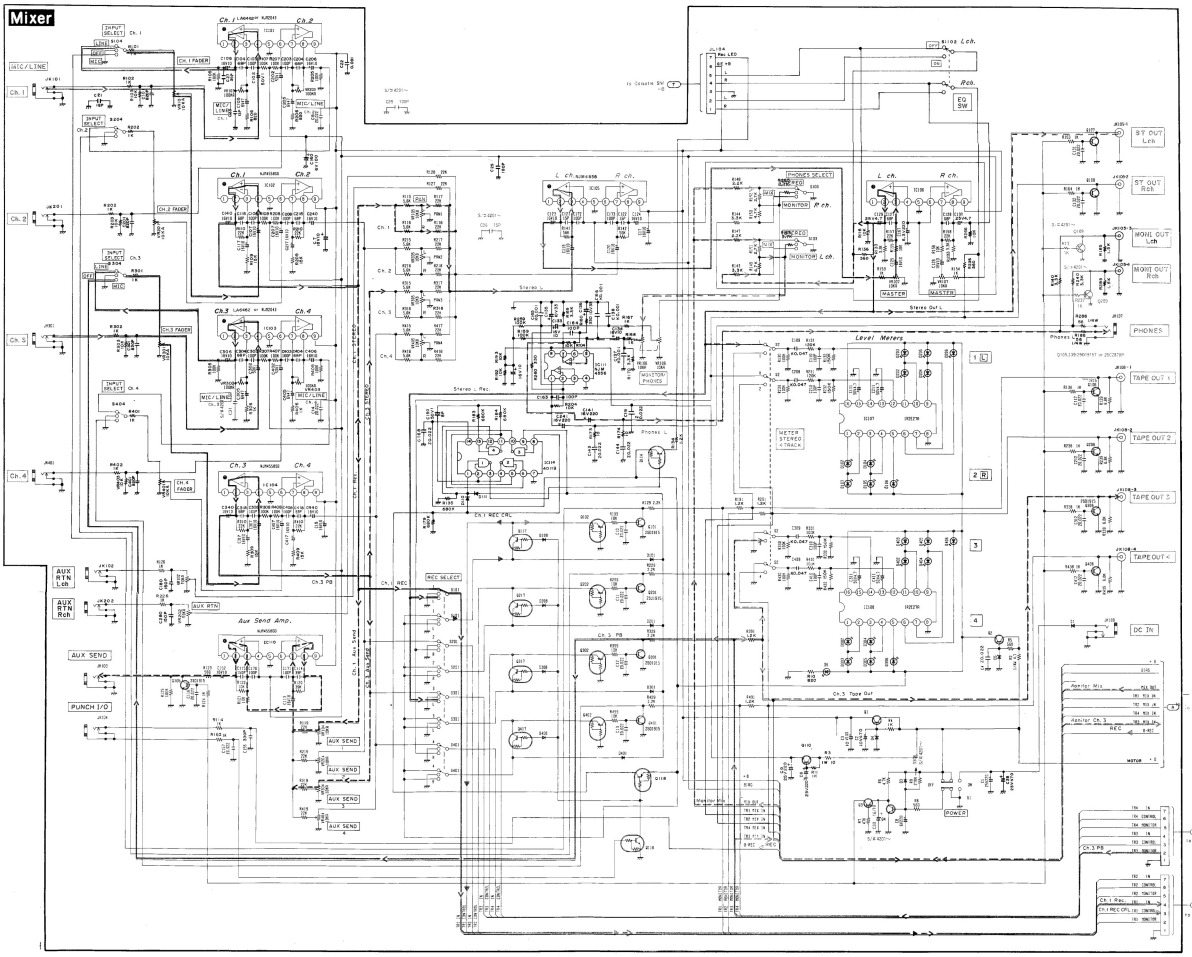


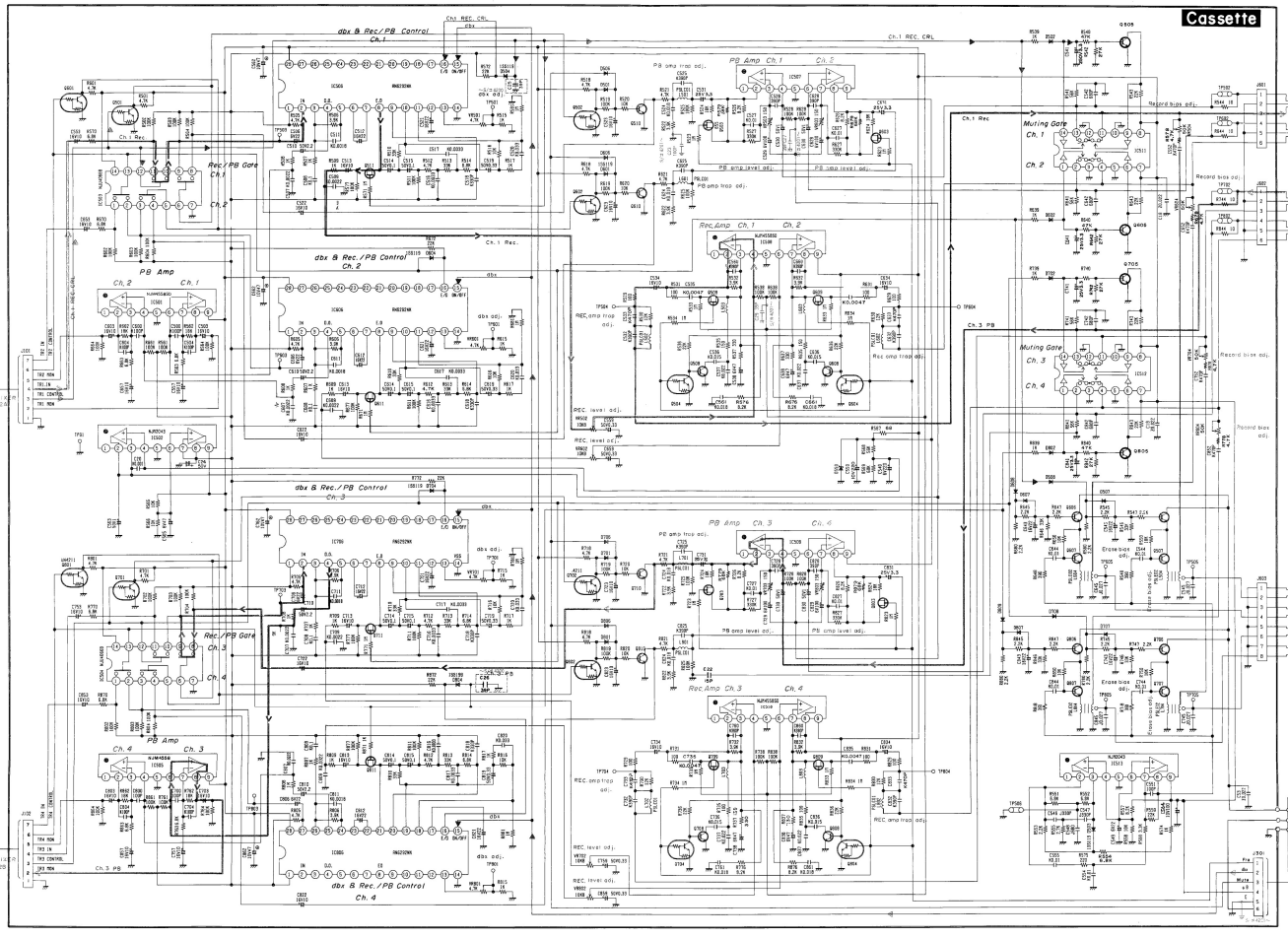
Ref. No.	Part No.	Description		部品名	Remarks	ランク
＊	NX809100	Cassette Deck	RJDK3501ZA	デッキ	CMX/MT100II	
1	AX803760	Chassis Assembly	RC1316	シャーシＡｓｓ'ｙ		14
2	AX803770	Shift Arm Assembly	RD1354	シフトアーム Ass'y		12
3	AX803780	Head Chassis	RCS1386	ヘッドシャーシ		12
4	AX803790	Pack Spring	RD1311	パックスプリング		03
5	AX803800	Motor Bracket	RD1318	モーター金具		07
6	AX803810	Flywheel Bracket	RCS1384	フライホイール金具		07
7	AX803820	Counter Bracket	RDS1385	カウンター金具		07
8	AX803830	Break Lever	RD1345	ブレークレバー		05
9	AX803840	Coller, Shift Arm (large)	RD2311	シフトアームカラー		05
10	AX803850	Coller, Shift Arm (small)	RD3351	シフトアームカラー		05
11	AX803860	Idler Arm Assembly	RD3311	ｱｲﾄﾞﾗｰｱｰﾑ Ass'y		05
12	AX803870	Idler Gear	RD3310	アイドラーギアー		05
13	AX803880	Motor Gear	RD3312	モーターギアー		05
14	AX803890	Idler Base	RC3308	アイドラーベース		05
15	AX803900	Motor Pulley	RD3330	モーターブーリー		04
16	NX805600	Pinch Roller Assembly	RD3307	ピンチローラー Ass'y		07
17	AX803910	Break Arm	RD3329	ブレークアーム		03
18	CX806120	Capstan Speacer	RD3324	ｷｬﾌﾟｽﾀﾝｽｽﾍﾟｰｻｰ		03
19	AX803920	Cassette Guide (C)	RD3301	カセットガイド（Ｃ）		03
20	AX803930	Cassette Guide (L)	RCS3371	カセットガイド（Ｌ）		04
21	AX803940	Cassette Guide (R)	RCS3372	カセットガイド（Ｒ）		04
22	AX803950	Reel Table	RC3313	リールテーブル		05
23	AX803960	Head Base	RCS3373	ヘッドベース		05
24	AX803970	PLAY Gear	RB3316	プレイギア		05
25	AX803980	PLAY Arm	RD3361	プレイアーム		05
26	CX806130	Drive Belt		ドライブベルト		07
27	CX806140	Counter Belt	KD4018	カウンターベルト		06
28	MX800550	Housing Assembly	RC5301	ハウジングＡｓｓ'ｙ		09
29	AX803990	Flywheel Assembly	RD5310	フライホイール Ass'y		15
30	AX804000	Shift Arm Spring	RD6325	ｼﾌﾄｱｰﾑｽﾌﾟﾘﾝｸﾞ		03
31	AX804010	Clutch Spring	RD6344	クラッチスプリング		03
32	AX804020	Reel Spring (L)	RD6339	リールスプリング（Ｌ）		03
33	AX804030	Reel Spring (R)	RD6338	リールスプリング（Ｒ）		03
34	AX804040	Spring, Head Chassis	RD6335	ﾍｯﾄﾞｼｬｰｼｽﾌﾟﾘﾝｸﾞ		03
35	AX804050	Head Spring (REC/PB)	KD6009	ヘッドスプリング		03
36	AX804060	Break Spring	RD6312	ブレークスプリング		03
37	AX804070	Spring, PLAY Arm	RD6308	ﾌﾟﾚｲｱｰﾑｽﾌﾟﾘﾝｸﾞ		03
38	AX804080	Spring, Pinch Roller	RD6305	ﾋﾟﾝﾁﾛｰﾗｰｽﾌﾟﾘﾝｸﾞ		03
39	AX804090	Head Spring (E)	G46084	ヘッドスプリング		03
40	AX804100	Solenoid	RD9301	ソレノイド		12
41	AX804110	Reel Magnet	RDS9367	リールマグネット		06
42	IX803760	Hole IC	RD9443	ホールＩＣ	DN685ID	11
43	NX805610	Circuit Board, IC	RD9374	ホールＩＣ基板		05
44	NX805620	Wire Assembly	RD9578	ワイヤーＡｓｓ'ｙ	14 pin	11
45	NX805630	Wire Assembly	RD9579	ワイヤーＡｓｓ'ｙ	3 pin	07
46	EX801450	Fixed Screw, Head Chassis	MD8002	ﾍｯﾄﾞｼｬｰｼ固定ﾈｼﾞ		02
47	EX801460	Fixed Screw, Break Arm	MD8003	ﾌﾞﾚｰｸｱｰﾑ固定ﾈｼﾞ		02
48	EX801470	Idler Washer	RD8319	アイドラーワッシャー		03
49	EX801480	Reel Washer	RD8321	リールワッシャー		03
50	EX801490	Washer, Flywheel	RD8318	ﾌﾗｲﾎｲｰﾙﾜｯｼｬｰ	2.1X4.0X0.5t	03
51	CX806150	Nylon Band	96025001	ナイロンバンド	1075	03
52	GX801450	Reel Motor	91300039	リールモーター		18
53	KX801220	Leaf Switch	94081039	リーフスイッチ		07
54	KX801230	Leaf Switch	94019040	リーフスイッチ		05
55	EX801500	Toothed Lock Washer	8135026001	歯付座金内歯形	φ2.6	03
56	EX801510	Washer, Polyslider (Reel)	8341116029	ﾎﾟﾘｽﾗｲﾀﾞｰﾜｯｼｬｰ/ﾘｰﾙ	1.6X3.5X0.5tcut	03
57	EX801520	Washer, Polyslider (Idler)	8342132044	ﾎﾟﾘｽﾗｲﾀﾞｰﾜｯｼｬｰ/ｱｲﾄﾞﾗ	1.7X3.5X0.5t	03
58	EX801530	Washer, Polyslider (P.Arm)	8341121034	ﾎﾟﾘｽﾗｲﾀﾞｰﾜｯｼｬｰ/P.ｱｰﾑ	2.1X4.0X0.5t	03
59	EX801540	Nylon Washer (Housing)	8340419002	ナイロンワッシャー	1.9X5.0X0.5t	03
60	EX801550	Pan Head Screw	8113112004	ナベ小ネジ	2.0X4 ZMC2Y	03
61	EX801560	Pan Head Screw	8113112005	ナベ小ネジ	2.0X5 ZMC2Y	03
62	EX801570	Pan Head Screw	8113112008	ナベ小ネジ	2.0X8 ZMC2Y	03
63	EX801580	Pan Head Tapping Screw	8114112005	ナベタッピングネジ	2.0X5 ZMC2Y	03
64	EX801590	Bind Head Screw	8115512012	バインド小ネジ	2.0X12 ZMC2Y	03
65	EX801600	Washer Head Screw	8115812010	ﾜｯｼｬｰﾍｯﾄﾞ小ﾈｼﾞ	2.0X10 ZMC2Y	03
66	EX801610	Pan Head Screw	8115112603	ナベ小ネジ	2.6X3 ZMC2Y	03
67	EX801660	Flat Head Screw	8115712604	皿小ネジ	2.6X4 ZMC2Y	03
＊ 68	PX800070	Tape Counter	RSEK-6ZA	カウンター		
＊ 69	GX802480	Rec/Playback Head	LMBRA00001N	録再ヘッド		
＊ 70	GX802490	Erase Head	LMBRA00002N	消去ヘッド		
71	GX801310	Motor	MMU-5U2RWJ	モーター		09
72	ED020046	Bind Head Screw		バインド小ネジ	2.0X4	01
73	VG824800	Flat Head Tapping Screw	25902	皿タッピングネジ	2.6X6	
74	EA026046	Pan Head Screw		ナベ小ネジ	2.6X4	01
74-1	EV300266	Spring Washer		バネ座金	φ2.6 ZMC2Y	01

＊New Parts（新規部品）

ランク：Japan only

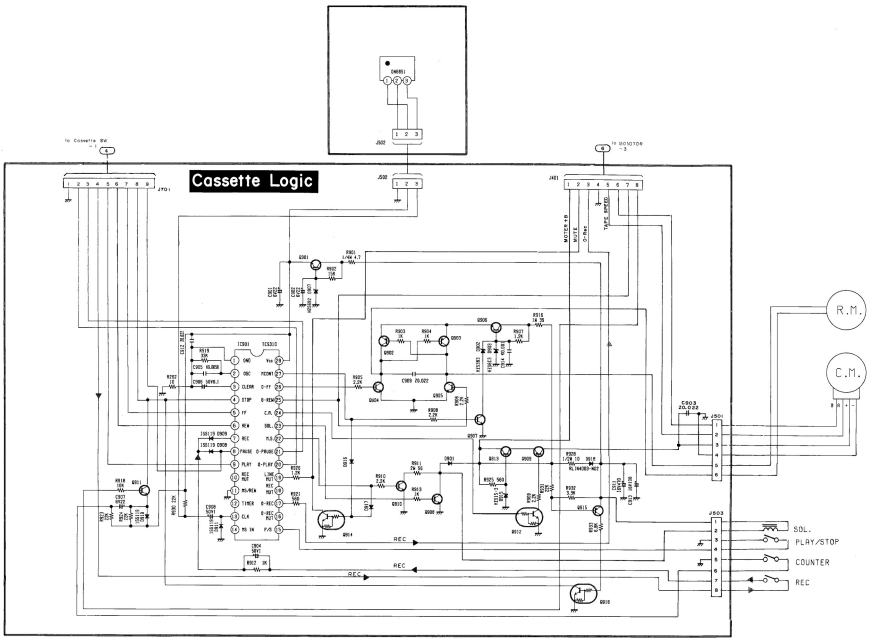
■MT100II OVERALL CIRCUIT DIAGRAM1/2

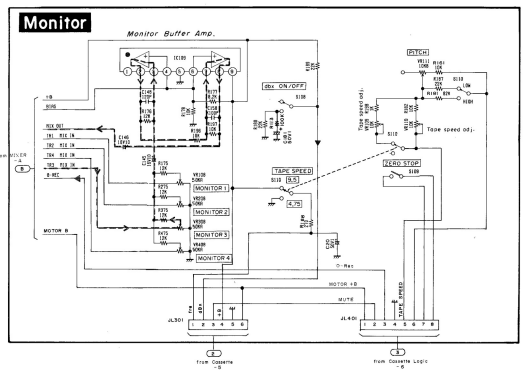


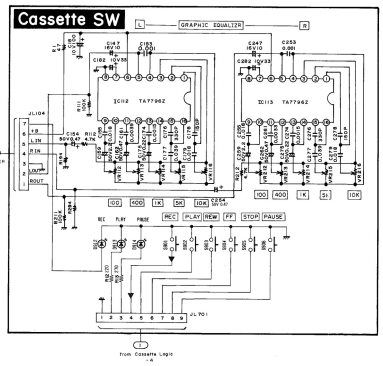


MT100II

■MT100II OVERALL CIRCUIT DIAGRAM 2/2







Notes)

Circuit Board: MIXER (NX809130) LMJB0036A-a

1. IC
   IC101, 103: SVINJM2043SE (XX808720) OP AMP.
   IC102, 104 – 106, 109, 110: NJM4558SD (IX803430) OP AMP.
   IC107, 108: IR2E27A (IX803210) LED
   IC111: NJM4556D (XA772001) OP AMP.
   IC114: MLC4011B (IX805400) NAND

2. Transistor
   Q1, 2: 2SD2012 (IX803230)
   Q3: 2SA1309R-TA (IX802240)
   Q4: 2SC3311S-TA (IX801680)
   Q101, 201, 301, 401, 108 – 108, 206, 306, 406: 2SD1915-T (IX803460)
   Q102, 202, 302, 402, 117, 217, 317, 417, 114, 118: UN4111-TA (IX803440)
   Q110: 2SD400 F, G MP (ID040030)
   Q116: DTC114ESPTA (IX607610)

3. Diode
   D1: 1SR35200AT (IX600740)
   D3, 101, 201, 301, 401, 110, 111: MA165TA (IX602480)

4. Zener Diode
   D4, 5: MA4091MTA (IX805410)

5. LED
   D6, 102, 202, 302, 402, 103, 203, 303, 403: SLR-33VC3F (IX805420) Red
   D104 – 106, 204 – 206, 304 – 306, 404 – 406: LT3H437 (IX805430) Yellow

6. Slide Pot.
   VR101, 201, 301, 401: PSVS451AA14 10KA (HX802490) MIC/LINE IN Faders
   VR102: PSVS252AA14 10KAX2 (HX802520) AUX RTN
   VR103, 203, 303, 403: PSVS301AA15 100KA (HX805940) MIC/LINE GAIN 1 – 4
   VR104, 204, 304, 404: PSVS251AA14 10KA (HX802500) AUX SEND
   VR106: PSVS302AA14 10KAX2 (HX805950) MONITOR/PHONES
   VR107: PSVS351AA14 10KAX2 (HX802530) MASTER Fader
   VR111: PSVS201AA14 10KB (HX802540) PITCH

7. Rotary Pot.
   VR105, 205, 305, 405: EVUF2AF20B14 10KB (HX805960) PAN
   VR108, 208, 308, 408: EVUF2AF20A54 50KA (HX805970) MONITOR

8. Trimmer Potentiometer
   VR109, 110: EVND4AA00B14 10K (XX808860) TAPE SPEED adj.

9. Switch
   S1: SSHK61 (KX801040) POWER
   S2, 110: PSSSK18 (KX801050) METER, TAPE SPEED
   S101, 201, 301, 401, 104, 204, 304, 404: PSSSK17 REC. (KX801060) INPUT SELECT
   S103: LMSS3804A (KX802630) MONITOR SELECT
   S108, 109, 1102: PSSSK19 (KX801070) dbx, ZERO STOP, EQ

10. Jack
    JK101 – 103, 201, 202, 301, 401: LMJJ61SS03 (LX802270) MIC/LINE 1 – 4 Input
    JK104: LMJJ615D6 (LX802300) PUNCH I/O
    JK105, 108: LMJJ34MS04 (LX802280) 4P Output
    JK107: SJJ134B (LX802260) PHONES
    JK109: VJSS0360 (LX802290) DC 12V

Notes)

Circuit Board: Cassette 1/2 (NX809150) LMJB0037A-a

1. IC
   IC501, 505, 508, 510: NJM4558SD (IX803430) OP AMP.
   IC502, 513: SVINJM2043SE (XX808720) OP AMP.
   IC503, 504: BU4066B (IX607370) SWITCH
   IC506, 606, 706, 806: AN6292NK (IX803220) dbx
   IC507, 509: LA6462S (IX805450) HEAD AMP.
   IC511, 512: μPC1298C (XA508001) SWITCH

2. Transistor
   Q501, 601, 701, 801, 502, 602, 702, 802, 504, 604, 704, 804: UN4214 TA (IX803450) Digital Transistor
   Q505, 605, 705, 805, 508, 608, 708, 808: 2SC3311S T (IX801680)
   Q506, 606, 706, 806, 507, 607, 707, 807: 2SC1383-O (IX808800)
   Q510, 610, 710, 810: 2SC2878 B (IX800660)

3. FET
   Q503, 603, 703, 803, 509, 609, 709, 809, 511, 611, 711, 811: 2SK655-T (IX803480)

4. Diode
   D501, 601, 701, 801, 502, 602, 702, 802, 504, 604, 704, 804, 506, 606, 706, 806, 507, 607, 707, 807, 503, 608: MA165 TA5 (IX602480)
   D508, 708, 808: MA150 TA5 (IF990530)

5. Zener Diode
   D50: MA4075MTA (IX604630)

6. Trimmer Potentiometer
   VR501, 601, 701, 801: EVND4AA00B53 (VD735100) dbx adj.
   VR502, 602, 702, 802: EVND4AA00B14 (IX804870) Rec Gain adj.
   VR503, 603, 703, 803: EVND4AA00B22 (HX805990) Play back Gain adj.
   VR504, 604, 704, 804: EVN61AA00B54 (HX551750) Rec Bias adj.

7. Coil
   L501, 601, 701, 801, 502, 602, 702, 802: PSLC01T (GX801280) Bias Trap
   L503, 603, 703, 803: QLQX2427T (GX801300) Hac f.t.
   L504, 604, 704, 804: PSLE01T (GX801290) Bias Drive

Notes)

Circuit Board: Cassette 2/2 (NX809150) LMJB0037A-c

1. Transistor
   Q51: 2SD2012 (IX803230)

Notes)

Circuit Board: Logic (NX809160) LMJB0037A-b

1. IC
   IC901: TC9310N-064 (IX801040) MECA

2. Transistor
   Q901, 904, 905, 908, 910, 913: 2SD1225M QR (IX601880)
   Q902, 903, 909: 2SB909M (IX606750)
   Q906: 2SD2012 (IX803230)
   Q907, 911: 2SC3311S-TA (IX801680)
   Q912, 914: UN4214-TA (IX803450) Digital Transistor
   Q915: 2SA1309R-TA (IX802240)
   Q916: DTC143ES TA (IX607680) Digital Transistor

3. Diode
   D901, 918: 1SR35-200AT 1A (IX606740)
   D908 – 911, 916, 917: MA165 TA5 (IX602480)

4. Zener Diode
   D902: MA4033MTA (IX805460)
   D903, 907: MA4062MTA (IX604600)
   D915: MA4150MTA (IX801800)

5. Metal Film Resistor
   R911: ERG2ANJP560S (HX806000)
   R918: ERG1ANJP390S (HX806010)
   R928: ERG1SJ100P (HX806020)

6. Electrolytic Cap.
   C911: ELEA1CU471E (UW938470) 470μF 16.0V

Notes)

Circuit Board: Equalizer (NX809140) LMJB0036A-b

1. IC
   IC112, 113: TA7796Z (IX805440) GE

2. LED
   D912: LN221RPH (IX803530) Red
   D913: LN4219PH (IX803280) Orange
   D914: LN321GPH (IX803270) Green

3. Slide Pot.
   VR112 – 116, 212 – 216: PSVS201AG15 100KG (HX805980) GRAPHIC EQ.

4. Switch
   S901 – 906: EVQ-QS405 (KX802640)